

CLAIMS

1. A radio communication system comprising a primary station having means for transmitting a series of data packets to a secondary station, wherein the secondary station has means for determining whether each packet is received correctly and means for signalling this determination to the primary station, and the primary station has means for transmitting error correction information relating to a data packet which the secondary station has not received correctly to assist the secondary station in decoding that packet, means for transmitting the series of data packets via a plurality of logical channels, thereby enabling continued transmission of data packets on at least one channel while error correction information is transmitted on another channel, and handover means for transferring transmission of at least two of the logical channels to another primary station, wherein the handover means comprises means for transferring each of the at least two logical channels individually to another primary station in response to receiving acknowledgement of successful reception of the most recently-transmitted packet on that logical channel, regardless of the status of the other logical channels.

2. A system as claimed in claim 1, characterised in that the error correction information comprises a retransmission of the data packet not received correctly.

3. A system as claimed in claim 1, characterised in that the error correction information enables the secondary station to employ an incremental redundancy scheme.

4. A primary station having means for transmitting a series of data packets to a secondary station, means for determining from signals transmitted by the secondary station whether each packet is received correctly, means for transmitting error correction information relating to a data packet which the

secondary station has not received correctly to assist the secondary station in decoding that packet, means for transmitting the series of data packets via a plurality of logical channels, thereby enabling continued transmission of data packets on at least one channel while error correction information is transmitted on another channel, and handover means for transferring transmission of at least two of the logical channels to another primary station, wherein the handover means comprises means for transferring each of the at least two logical channels individually to another primary station in response to receiving acknowledgement of successful reception of the most recently-transmitted packet on that logical channel, regardless of the status of the other logical channels.

5. A primary station as claimed in claim 4, characterised in that all of the logical channels are transferred to another primary station.

6. A secondary station having means for receiving a series of data packets from a primary station, means for determining whether each packet is received correctly and means for signalling this determination to the primary station, means for receiving from the primary station error correction information relating to a data packet which the secondary station has not received correctly to assist the secondary station in decoding that packet, means for receiving the series of data packets via a plurality of logical channels, thereby enabling continued reception of data packets on at least one channel while error correction information is transmitted on another channel, and handover means for starting to receive at least two of the logical channels from another primary station, each of the at least two channels being transferred from the primary station to another primary station in response to acknowledgement by the secondary station of successful reception of the most recently-transmitted packet on the respective logical channel, regardless of the status of the other logical channels.

7. A secondary station as claimed in claim 6, characterised in that site selection means are provided for selecting at least one primary station from a plurality of available primary stations for the transmission of subsequent data packets to the secondary station.

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8. A method of operating a radio communication system comprising a primary station arranged to transmit a series of data packets to a secondary station, the method comprising the secondary station determining whether each packet is received correctly and signalling this determination to the primary station, and the primary station transmitting error correction information relating to a data packet which the secondary station has not received correctly to assist the secondary station in decoding that packet, transmitting the series of data packets via a plurality of logical channels, thereby enabling continued transmission of data packets on at least one channel while error correction information is transmitted on another channel, and being able to transfer transmission of at least two of the logical channels to another primary station, wherein each of the at least two logical channels may be transferred individually to another primary station in response to receiving acknowledgement of successful reception of the most recently-transmitted packet on that logical channel, regardless of the status of the other logical channels.

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9. A method as claimed in claim 8, characterised by the primary station transferring each logical channel to the same other primary station.

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